

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method in a routing device for retrieving an identification of a destination port for data, the data being received through a source port and having an address, the method comprising:

when a cache associated with the source port has an identification of ~~a~~the destination port associated with the address of the data, retrieving the identification of the destination port from the cache; and

when ~~a~~the cache associated with the source port does not have the identification of ~~a~~the destination port associated with the address of the data and when a table shared by multiple ports including the source port has the identification of ~~a~~the destination port associated with the address of the data, retrieving of the identification of the destination port from the table; and

when the table shared by multiple ports does not have the identification of the destination port associated with the address of the data, retrieving the identification of the destination port from a network manager, wherein the network manager configures multiple routing devices to forward data to at least one other routing device in response to a data communication registration request, and wherein the network manager does not participate in data forwarding as a routing device.

2. (Currently amended) The method of claim 1 including storing the identification of the destination port retrieved from the table in the cache associated with the source port.

3. (Original) The method of claim 1 wherein the cache and the table contain port maps that designate one or more ports.

4. (Original) The method of claim 1 wherein the address of the data is a virtual address.
5. (Cancelled)
6. (Currently amended) The method of claim ~~5~~1 including storing the identification of the destination port retrieved from the ~~source external to the routing device~~network manager in the table.
7. (Original) The method of claim 1 wherein the table is shared by four ports.
8. (Original) The method of claim 1 wherein the table is shared by multiple ports.
9. (Original) The method of claim 1 wherein each port is associated with its own cache.
10. (Original) The method of claim 1 wherein the address is a portion of a Fibre Channel frame.
11. (Original) The method of claim 1 wherein the address is a portion of an InfiniBand frame.
12. (Original) The method of claim 1 wherein the table is a virtual address label table.
13. (Original) The method of claim 1 wherein the routing device is an interconnect fabric module.
14. (Original) The method of claim 1 wherein the routing device is Fibre Channel compatible.
15. (Original) The method of claim 1 wherein the routing device is InfiniBand compatible.

16. (Original) The method of claim 1 wherein the address is a domain address

17. (Currently amended) A routing device comprising:
a shared collection of mappings of identifiers to destination ports of the routing device; and
a plurality of source ports, each source port having
a cache for storing mappings of identifiers to destination ports of the routing device;
a component that retrieves an identification of a destination port from the cache when the cache has a mapping of an identifier associated with communication received at the source port to ~~a~~the destination port; ~~and~~
a component that retrieves an identification of ~~a~~the destination port from the shared collection when the cache does not have a mapping of the identifier associated with the communication received at the source port to ~~a~~the destination port; and
a component that retrieves the identification of the destination port from a network manager when the shared collection of mappings does not have the mapping of the identifier associated with the communication received at the source port to the destination port, wherein the network manager configures multiple routing devices to forward data to at least one other routing device in response to a data communication registration request, and wherein the network manager does not participate in data forwarding as a routing device.

18. (Currently amended) The routing device of claim 17 wherein the component that retrieves the identification of ~~a~~the destination port from the collection stores the identification of the destination port retrieved from the collection in the cache.

19. (Original) The routing device of claim 17 wherein the cache and the collection contain port maps that designate one or more ports.

20. (Original) The routing device of claim 17 wherein the identifier of the communication is a virtual identifier.

21. (Cancelled)

22. (Currently amended) The routing device of claim ~~24~~17 wherein the component that retrieves the identification of the port from ~~a source external to the routing device~~the network manager stores the identification of the destination port retrieved from the network manager~~source external to the routing device~~ in the collection.

23. (Original) The routing device of claim 17 wherein the collection is shared by multiple source ports.

24. (Original) The routing device of claim 17 wherein the identifier is a portion of a Fibre Channel frame.

25. (Original) The routing device of claim 17 wherein the identifier is a portion of an InfiniBand frame.

26. (Original) The routing device of claim 17 wherein the collection is a virtual identifier label table.

27. (Original) The routing device of claim 17 wherein the routing device is a switch.

28. (Original) The routing device of claim 17 wherein the routing device is an interconnect fabric module.

29. (Original) The routing device of claim 17 wherein the routing device is Fibre Channel compatible.

30. (Original) The routing device of claim 17 wherein the routing device is InfiniBand compatible.

31. (Original) The routing device of claim 17 wherein the address is a domain address

32. (Original) The routing device of claim 17 wherein the address is part of a virtual identifier.

33. (Currently amended) A method in a routing device for retrieving an identification of a destination port for a communication, the communication being received through a source port and having an identifier, the method comprising:

when a cache has an identification of ~~a~~ the destination port associated with the identifier of the communication, retrieving the identification of the destination port from the cache; and

when the cache does not have the identification of ~~a~~ the destination port associated with the identifier of the communication and when a mapping shared by multiple ports including the source port has the identification of ~~a~~ the destination port associated with the identifier of the communication, retrieving of the identification of the destination port from the mapping; and

when the mapping shared by multiple ports does not have the identification of the destination port associated with the identifier of the communication, retrieving the identification of the destination port from a network manager, wherein the network manager configures multiple routing devices to forward communication to at least one other routing device in response to a communication

registration request, and wherein the network manager does not participate in communication forwarding as a routing device.

34. (Currently amended) The method of claim 33 including storing the identification of the destination port retrieved from the mapping in the cache.

35. (Original) The method of claim 33 wherein the cache and the mapping contain port maps that designate one or more ports.

36. (Original) The method of claim 33 wherein the identifier of the communication is a virtual address.

37. (Cancelled)

38. (Currently amended) The method of claim ~~37~~ 33 including storing the identification of the destination port retrieved from the ~~source external to the routing device~~ network manager in the mapping.

39. (Original) The method of claim 33 wherein each port is associated with its own cache.

40. (Original) The method of claim 33 wherein the identifier is a portion of a Fibre Channel frame.

41. (Original) The method of claim 33 wherein the identifier is a portion of an InfiniBand frame.

42. (Original) The method of claim 33 wherein the mapping is a label table.

43. (Original) The method of claim 33 wherein the routing device is an interconnect fabric module.

44. (Original) The method of claim 33 wherein the identifier is a domain address.

45. (Currently amended) A routing device comprising:
means for mapping identifiers to destination ports in a shared collection;
and means for mapping identifiers to destination ports in a cache
collection for each of a plurality of ports;
means for retrieving an identification of a destination port from the cache
collection when the cache collection has a mapping of an identifier
associated with a communication to a the destination port; and
means for retrieving ~~an~~ the identification of a the destination port from the
shared collection when the cache collection does not have a
mapping of the identifier associated with the communication to a
the destination port; and
means for retrieving the identification of the destination port from a
network manager when the shared collection of mappings does not
have the mapping of the identifier associated with the
communication received at the source port to the destination port,
wherein the network manager configures multiple routing devices to
forward data to at least one other routing device in response to a
data communication registration request, and wherein the network
manager does not participate in data forwarding as a routing
device.

46. (Currently amended) The routing device of claim 45 wherein the means
for retrieving the identification of a the destination port from the shared collection
includes means for storing a mapping of the identifier to the retrieved identification of
the destination port in the cache collection for the source port that received the
communication.

47. (Original) The routing device of claim 45 wherein the cache collection and
the shared collection contain port maps that designate one or more ports.

48. (Original) The routing device of claim 45 wherein the identifier of the communication is a virtual identifier.

49. (Cancelled) The routing device of claim 45 including means for retrieving the identification of the port from a source external to the routing device when the shared collection does not have a mapping from the identifier of the communication to a destination port.

50. (Currently amended) The routing device of claim ~~49-45~~ wherein the means for retrieving the identification of the destination port from ~~a source external to the routing device~~ the network manager stores the identification of the destination port retrieved from the network managers ~~source external to the routing device~~ in the shared collection.

51. (Original) The routing device of claim 45 wherein the shared collection is shared by multiple source ports.

52. (Original) The routing device of claim 45 wherein the identifier is a portion of a Fibre Channel frame.

53. (Original) The routing device of claim 45 wherein the identifier is a portion of an InfiniBand frame

54. (Original) The routing device of claim 45 wherein the shared collection is a virtual identifier label table.

55. (Original) The routing device of claim 45 wherein the routing device is an interconnect fabric module.

56. (Original) The routing device of claim 45 wherein the identifier is a domain address.

57. (Original) The routing device of claim 45 wherein the identifier is part of a virtual identifier.